UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,787	01/30/2004	Colin Murgatroyd	920476-95496	7138

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EXAMINER
ELALLAM, AHMED

ART UNIT	PAPER NUMBER
2616	

NOTIFICATION DATE	DELIVERY MODE
12/28/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent-ch@btlaw.com

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/768,787	MURGATROYD ET AL.
	Examiner	Art Unit	
	AHMED ELALLAM	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 January 2004</u>.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-9, 13 and 15-40* is/are rejected.
7)☒ Claim(s) *10-12 and 14* is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *12 July 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Drawings

1.   The drawings are objected to under 37 CFR 1.83(a) because they fail to show

computing device 24 as described in the specification, page 16, lines 27-28, page 17,

lines 1, 2, and 5. Any structural detail that is essential for a proper understanding of the

disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected

drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office

action to avoid abandonment of the application. Any amended replacement drawing

sheet should include all of the figures appearing on the immediate prior version of the

sheet, even if only one figure is being amended. The figure or figure number of an

amended drawing should not be labeled as "amended." If a drawing figure is to be

canceled, the appropriate figure must be removed from the replacement sheet, and

where necessary, the remaining figures must be renumbered and appropriate changes

made to the brief description of the several views of the drawings for consistency.

Additional replacement sheets may be necessary to show the renumbering of the

remaining figures. Each drawing sheet submitted after the filing date of an application

must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office

action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2.   Claims 20-38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claims 20, and 36, these claims are single mean claims.

A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35U.S.C. 112, first paragraph. In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197(Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). When claims depend on a recited property, a fact situation comparable to Hyatt is possible, where the claim covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor. See MPEP 2164.08(a).

Claims 21-35 and 37-38 depend from respective claims 20 and 36, thus they are subject to the same rejections.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1-6, 8, 20-27, 29, and 36-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Iryami et al, US 7,032,139 B1. Hereinafter referred to as Iryami.

Regarding claims 1, 20, 36 with reference to figures 2, 4B and 4C, Iryami discloses a method/ a bit error tester 100 (Figure 2) and a control logic 225 (Figure 2) for performance monitoring in a communications network, comprising:

Measuring bit error rate of a signal over time by allocating bit error thresholds selected from a plurality of bit error rate thresholds, the thresholds corresponding to triggering events, see figure 4B and 4C, column 9, lines 63-column 10, line 29. (claimed monitor or monitoring a signal over time by allocating a current signal quality characterization to the signal, selected from at least two such signal quality characterizations; identifying a plurality of time intervals making up a continuous succession of such time intervals, such that a current time interval is terminated and a next time interval is initiated each time the signal quality characterization allocated to the signal changes). Iryami further discloses generating a log that describe each triggering event and data relating to these triggering events is captured and stored, see column 10, lines 13-15, and lines 27-29. (Claimed generating a record of each identified time interval).

Regarding claims 2, 23, Iryami discloses generating a log that describe each triggering event and data relating to these triggering events is captured and stored, see column 10, lines 13-15. (Claimed generating a performance log using the records).

Regarding claims 3 and 24, with reference to figure 4C, it is shown a period of time during which the bit error rate is null. (Claimed signal quality characterization comprise a perfect time interval).

Regarding claims 4, and 25, Iryami discloses generating a log that describe each triggering event and data relating to these triggering events is captured and stored, see column 10, lines 13-15.

Regarding claims 5 and 26, figure 4C shows a time axis including intervals of time and corresponding bit error time. (Claimed record for each interval comprises at least the length of the interval and the signal quality characterization allocated for the interval).

Regarding claims 6 and 27, Iryami discloses generating a log that describe each triggering event, so that a user can analyze each event. See column 10, lines 13-15. (Claimed generating a performance log made up of records stored in accordance with the succession of time intervals).

Regarding claims 8 and 29, Figure 4C of Iryami provides for sets of records corresponding to continuous successions of time intervals. (Claimed sets of records corresponding to continuous successions of time intervals).

Regarding claims 21 and 22, Iryami discloses a processor belonging to the bit error tester 100, Figure 2, unit 225. The bit error tester 100 have multiple network

interfaces to which different types of networks may connect. See column 1, lines 56-58.

(Claimed processor is located in a network element of the communications network, as

in claim 21, and processor for monitoring a communications path and which is located

in a network element of the communications network, which network element terminates

the communications path).

Regarding claims 37 and 40, Iryami discloses the control logic in the bit error

tester, see figure See figure 2. (Claimed control logic is located in a network element of

the communications network).

Regarding claim 38, Iryami discloses monitoring a communications path and

which is located in a network element of the communications network, which network

element terminates the communications path. See Figure 1.

Regarding claim 39, Iryami discloses the bit error tester (claimed network

element) for carrying out performance monitoring in a communications network

comprising; control logic 225, memory 215 and comparator 220, these element in

cooperation provides the means for implementing the method of Iryami as discussed in

claim 1 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 17, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Iryami.

Regarding claims 17, 18 and 19:

Claim 17 is a computer executable software code stored on a computer readable

medium for making a computer execute the method of claim 1.

Claim 18 is a programmed computer, which stores computer executable program

code for making the computer execute the method of claim 1.

Claim 19 is computer readable medium having computer executable software

code stored thereon, which code is for making a computer execute the method of claim

1.

Examiner take official notice that executing a method using a computer

executable software code stored on a computer readable medium (as in claim 17), or a

programmed computer, which stores computer executable program code for making the

computer implement a method steps (as in claim 18), or computer readable medium

having computer executable software code stored thereon, which code is for making a

computer execute a method steps, as in claim 19, are well known in the art. Since

official action is taken, it would have been obvious to a person of skill in the art at the

time the invention was made to implement his method using computer media so that the

method can be implemented using software so to reduce the cost and time required for

a hardware implementation.

5.   Claims 7, 9, 13, 15 and 16, 28, 30, 34 and 35 are rejected under 35 U.S.C.

103(a) as being unpatentable over Iryami in view of McGee et al, US 2003/0088542.

Hereinafter referred to as McGee.

Regarding claims 7, 9, 13, 15 and 16, 28, 30, 34 and 35 Iryami Does not disclose

manipulating selected records to reduce the amount of memory required to store the

records while intelligently degrading their accuracy, as in claim 7 and 28, designating

some records as primary records and others as secondary records; selecting sets of

secondary records corresponding to continuous successions of time intervals; and

merging the selected sets to form a merged record as in claims 9 and 30, and

monitoring the amount of memory required to store the records, and when the amount

of memory reaches a predetermined limit, selecting sets of records corresponding to

continuous successions of time intervals, and merging the selected sets to form a

merged record so as to reduce the amount of memory required to store the records as

in claims 13 and 34, and merging selected records to form a merged record with a

quality characterization of poor time and a duration equal to the sum of the duration of

the intervals associated with the merged records, as in claims 15 and 35, and selecting

a set of records corresponding to a continuous succession of time intervals and merging

the selected set to form a merged record provided the memory required to store the

merged record is less than the memory required to store the selected set of records as

in claim 16.

However, McGee discloses in the same field of endeavor of approximating

monitored values for a network performance data storage, (paragraph [0082]), merging

plurality of data sets with reduced data storage requirements. See paragraph [0016].

It would have been obvious to a person of skill in the art at the time the invention

was made to merge the data records of Iryami in accordance with the merging method

of McGee so to reduce storage capacity (McGee [0082]). It would be also advantageous

to greatly reduce the number of calculations that are needed to produce useful records

for the network performance data (histograms). (McGee [0082]).

Allowable Subject Matter

6.   Claims 31-33 would be allowable if rewritten to overcome the rejection(s) under

35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the

limitations of the base claim and any intervening claims.

7.   Claims 10-12 and 14 are objected to as being dependent upon a rejected base

claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure: See Form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (571) 272-3097. The examiner can normally be reached on 7-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AHMED ELALLAM
Examiner
Art Unit 2616
12/18/2007

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SUPERVISORY PATENT EXAMINER